

Date:

Grade 7: Math
6.3 Probability: Experimental Probability

$$\text{Probability} = \frac{\text{Number of successful trials}}{\text{Total number of trials}}$$

● **Practice Problems.**

1. A coin is tossed 9 times. Heads turn up 6 times. What is the relative frequency of getting a:
 - a. Tail.
 - b. Head.
 - c. What are the odds in favor of heads.
2. A dice is rolled 45. The chart below shows how many times each number turned up.

Number	1	2	3	4	5	6
# of times	5	12	11	3	5	9

What is the relative frequency of getting a:

- a. number 4.
- b. number 2.
- c. number 8.
- d. number less than 4.
- e. prime number.
- f. even and prime number.
- g. odd number or a number less than 5.
- h. What are the odds in favor of even number?
- i. What are the odds against drawing a number bigger than 4?

3. Two coins are tossed 100 times. The outcomes are displayed below.

Outcome	HH	HT	TH	TT
# of times	55	12	21	12

What is the relative frequency of getting:

- at least one tail.
 - at least one head.
 - What are the odds in favor of getting at least one tail?
 - What are the odds against getting two heads.
4. A basket contains colored marbles. It has 4 blue (**B**), 2 red (**R**), 5 green (**G**), 8 yellow (**Y**) and 7 black (**Bk**) marbles. A marble is drawn at random. Ten marbles are drawn as follows:

Trial Number	1	2	3	4	5	6	7	8	9	10
Outcomes	B	R	Bk	Bk	R	Y	Y	Y	Y	R

Find the probability that the marble is:

- red
- green
- yellow or black
- not blue
- What are the odds in favor of green?

5. During playoffs basketball player scores 52 free throws out of 60 free throw attempts. If he shoots 30 free throws next season how many does he score?

6. In a month Ms. Philip notices out of 120 cars that cross the Davisville - Mt. Pleasant intersection, 85 cars are blue, 12 red and the remaining black.
 - a. What is the relative frequency of a blue car?

 - b. What is the relative frequency against a red car?

- **Homework:** Problems 1-5 on page 413 in the textbook.